

NOTES ON THE ACRIDIDAE OF NEW ENGLAND.—II.—TRYXALINAE.—IV.

BY ALBERT P. MORSE, WELLESLEY, MASS.

CLINOCEPHALUS gen. nov.

This genus occupies an intermediate position between *Dichromorpha* and *Orphula* and is closely related to the former from which it differs especially in having the sides of the pronotum convex below the lateral carinae, which, in addition, are slightly divergent on the metazona. The type species, described below, has been referred to *Stenobothrus occidentalis* Sauss. by Prof. Bruner, but it does not agree with the description of that species in some important particulars and is probably new, an opinion concurred in by Prof. McNeill to whom I have sent an example.

Clinocephalus elegans sp. nov.

Figs. B, B a.

[*Stenobothrus occidentalis* Saussure, Rev. et Mag. Zool., xiii, 317 (1861); also Thomas, 92, 105.]

Antennae filiform, slender, in ♂ longer than head plus pronotum, in ♀ equal to head plus prozona. Eyes large, of ♂ twice, of ♀ one and a half times the length of the sub-ocular suture, and two-thirds as wide as long. Vertex in side view nearly horizontal; seen from above as wide (♂) or wider (♀) between the eyes as the greatest width of an eye; the anterior margin distinctly elevated, in the ♂ right-angled or slightly acute and rather sharp at the apex, in ♀ more blunt and rounded; projecting in front of the eyes but little less than the width of an eye. Foveolae absent but the ♀ shows a row of

small punctures on the front of the anterior margin. The top of the head shows a slight elongate medial depression in the convex part of the fastigium opposite the anterior end of the eyes, and also a pair of very shallow arcuate grooves, concave laterally, running from the end of the elevated margin of the vertex opposite the anterior part of the eyes back to the front margin of the pronotum, striking it about two-thirds of the way from the median to the lateral carinae. Face strongly retreating; costa rather deeply sulcate, in profile slightly curved (♂) or nearly straight (♀) slightly rounded above to meet vertex.

Pronotum elongate, longer than the anterior femora; the disk twice (♀) or twice and a half (♂) as long as wide. Carinae distinct, equally developed, the lateral parallel on the prozona, slightly divergent on the metazona. Metazona on midline two-thirds (♂) or three-fourths (♀) as long as prozona. Hind margin very obtusely angulate or nearly truncate. Sides of the pronotum with the dorsal third convex, the ventral two-thirds vertical, very similar in outline to *D. viridis* (Fig. 7b), longer than high, the front and hind margins of nearly equal length, converging downward, the hind margin becoming nearly vertical in its ventral fourth; lower margin obtuse-angulate just behind its middle, the two portions straight and nearly equiangular with the lateral carina in direction.

Tegmina nearly or quite reaching the tip of the abdomen, extending one-half to two-thirds down the hind femora, the marginal area dilated, tapering from that to tip; ♂ with the ulnar area enlarged, coarsely, — even scalariform-reticulated, except at base; ♀ similar but less enlarged, and less regularly reticulate.

Wings with opaque streak at distal third of costal margin, the ulnar area much expanded to the entire exclusion of the distal part of the discoidal. Anterior and middle femora of the ♀ slender, of the ♂ stout.

Genital segment of ♂ very like that of *D. viridis*; ovipositor of ♀ with the inferior tooth of the lower valves smaller than in *viridis*.

In color varying from light olivaceous green to dark greenish brown, with a dark brown stripe from hind margin of eyes along the sides of the pronotum, sometimes continued upon the humeral field of the tegmen. On the pronotum and head this stripe is usually about one-fourth the width of the side of the pronotum but sometimes becomes barely perceptible; it sometimes appears upon the disk as a narrow line just within the lateral carinae of the metazona.

Antenna	H. fem.	Teg.	Teg.	H. fem.	Body.	Total length.
♂ 7.5-8	10	10.5	2.5	17	16	
♀ 5	12.3	12	4	20.5-23	19	

Described from 5♂, 2♀ 1: ♀, Anglesea, N. J., labelled by Prof. L. Bruner, received from Prof. J. B. Smith. 1♂, 1♀, Ravenswood, L. I., Benteinmüller; 1♂, Ga.; 1♂, Md.; 2♂ without locality;—all these latter from Mr. Scudder's collection.

This species agrees with the description of *occidentalis* in the form of the pronotum and disposition of the lateral carinae, but the median carina is not sufficiently elevated to be properly called subcristiform, and the vertex of the head is distinctly depressed behind the front margin, a character in which it differs markedly from the description of *mystecus* which *occidentalis* is stated to closely resemble. In superficial appearance the female recalls the short-winged form of *Sten. curtipennis*, from which it is readily distinguished by the absence of foveolae.

NOTES ON THE OVIPOSITION OF *THANAOS ICELUS* (?).

May 27, 1894, at Turkey Hill, Arlington, Mass., I noticed a species of *Thanaos* fluttering around a plant of *Baptisia tinctoria* as if to lay eggs, returning to the same plant several times and finally laying a single egg, in two seconds, upon the upper side of a young and tender leaf near the base. This occurred at one o'clock on a warm, sunny day. Three more eggs were found upon the same plant. By searching, a dozen more such eggs were found, one or two on each plant, nine on one plant, always single and on the upper surface of the leaf. Numerous eggs were found similarly on May 30, also nests of a young *Thanaos* on *Baptisia*. June 3, a long and careful search revealed abundant nests, but only a single egg, and the imagos had become rare. The eggs were pure white when laid, turning pink or orange within four hours; base flattened, sides little-rounded, summit depressed; longitudinal ribs ten, transverse ridges wide, prominent, quite concave; at micropyle a saucer-like depression with hexagonal margin; breadth of egg, 0.76 mm.

Justus W. Folsom.

CALEPHELIS BOREALIS.—Looking over some miscellaneous entomological material the other day, which material had been captured by some of the students for the Station collection during the past summer, in this (Montgomery) County, I came across two unidentified specimens of *Calephelis borealis*. I closely questioned the student, but he could remember nothing as to date or immediate locality, or in fact anything, save that they had been caught near Blacksburg last summer. I note this, for while the butterfly has been taken in West Virginia by Mr. W. H. Edwards, I believe this is the first Virginia record, and any information concerning this species is desirable.

Ellison A. Smyth, Jr.
Blacksburg, Va., March 27, 1896.